

X16397 National.ST25.txt
SEQUENCE LISTING

<110> Han, Bomie
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Smith , Rosamund Carol
Tobias, Linda O.

<120> Anti-Myostatin Antibodies

<130> X-16397

<140> PCT/US2005/009307

<141> 2005-03-17

<150> US60/559,621

<151> 2004-04-05

<150> US60/555,456

<151> 2004-03-24

<160> 56

<170> PatentIn version 3.3

<210> 1

<211> 375

<212> PRT

<213> Homo sapiens

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Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
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Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
50 55 60

Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Val Ile Arg Gln Leu
65 70 75 80

Leu Pro Lys Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
85 90 95

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
115 120 125

Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser

130 X16397 National.ST25.txt
135 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
145 150 155 160

Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
180 185 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
195 200 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
210 215 220

Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
225 230 235 240

Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
245 250 255

Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
260 265 270

Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
275 280 285

Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
290 295 300

Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
305 310 315 320

Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
325 330 335

Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
340 345 350

Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
355 360 365

Val Asp Arg Cys Gly Cys Ser
370 375

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<211> 109
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<213> Homo sapiens

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1 5 10 15
Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
20 25 30
Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu
35 40 45
Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala
50 55 60
Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
65 70 75 80
Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly
85 90 95
Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
100 105

<210> 3
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<400> 3

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15
Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Ile Ser Tyr Met
20 25 30
His Trp Tyr Gln Gln Lys Pro Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45
Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60
Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80
Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Tyr Ser Asn Pro Leu Thr
85 90 95

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Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

<210> 4
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<400> 4

Gln Val Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
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Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val His Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

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Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu

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65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
85 90 95

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100 105

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Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Val Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Arg Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

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Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Ile Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

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Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Tyr Ser Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

<210> 8
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<400> 8

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Ile Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Asn Ser Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

<210> 9
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Gln Val Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
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Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Tyr Tyr Met

20

25

30

His Trp Tyr Gln Gln Arg Ser Gly Ala Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Thr Tyr Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

<210> 10
<211> 109
<212> PRT
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Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Tyr Ser Asn Pro Leu Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

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Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
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Glu Glu Val Thr Met Thr Cys Ser Ala Ser Ser Ser Ile Asn Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Asn Ser Asn Pro Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys Arg Ala Asp
100 105

<210> 12
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Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Ser Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Leu Ser Gly Phe Ser Leu Arg Thr Ser
20 25 30

Gly Met Ser Val Ser Trp Ile Arg Gln Ser Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Arg Asn Arg Leu Thr Ile Ser Lys Asp Thr Leu Arg Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Gly Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Arg Ala Ile Thr Thr Val Ile Gly Gly Gly Thr Met Asp
100 105 110

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Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
 115 120

<210> 13
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<400> 13

Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Ser Ser Gln
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Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

Gly Met Ser Val Ser Trp Ile Arg Gln Ser Ser Gly Lys Gly Leu Glu
 35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
 50 55 60

Leu Arg Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Arg Asn Gln Val
 65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Arg Gly Ile Thr Thr Val Leu Gly Gly Gly Thr Met Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
 115 120

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Leu Thr Leu Thr Cys Ser Leu Ser Gly Phe Ser Leu Thr Thr Ser Gly
 20 25 30

Met Ile Val Ser Trp Ile Arg Gln Ser Ser Gly Arg Gly Leu Glu Trp
 35 40 45

Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu
 50 55 60

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Arg Asn Arg Leu Thr Ile Ser Lys Asp Thr Leu Arg Asn Gln Val Phe
65 70 75 80

Leu Trp Ile Ser Ser Val Gly Thr Ala Asp Thr Ala Thr Tyr Tyr Cys
85 90 95

Ala Arg Arg Ala Ile Thr Thr Val Ile Gly Gly Gly Thr Met Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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<400> 15

Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Ser Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Ser Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Arg Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Arg Ala Ile Thr Thr Val Leu Gly Gly Gly Thr Met Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Met Leu Gln Ser Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Leu Ser Gly Phe Ser Leu Arg Thr Ser
20 25 30

Gly Met Ser Val Ser Trp Ile Arg Gln Ser Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Arg Asn Arg Leu Thr Ile Ser Lys Asp Thr Leu Arg Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Gly Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Arg Ala Ile Thr Thr Val Ile Gly Gly Gly Thr Met Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Leu Ser Gly Phe Ser Leu Arg Thr Ser
20 25 30

Gly Met Ser Val Ser Trp Ile Arg Gln Ser Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Glu Arg Tyr Asn Pro Ser
50 55 60

Leu Arg Asn Arg Leu Thr Ile Ser Lys Asp Thr Leu Arg Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Gly Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Arg Ala Ile Thr Thr Val Ile Gly Gly Gly Thr Met Asp

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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<210> 19
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<400> 19

Ser Ala Ser Ser Ser Val His Tyr Met His
1 5 10

<210> 20
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<400> 20

Ser Ala Ser Ser Ser Val Ser Tyr Met His
1 5 10

<210> 21
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<400> 21

Ser Ala Ser Ser Ser Val Tyr Tyr Met His
1 5 10

<210> 22
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Ser Ala Ser Ser Ser Ile Asn Tyr Met His
1 5 10

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Asp Thr Ser Lys Leu Ala Ser
1 5

<210> 24
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<400> 24

Gln Gln Trp Tyr Ser Asn Pro Leu Thr
1 5

<210> 25
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<400> 25

Gln Gln Trp Ser Ser Asn Pro Leu Thr
1 5

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Gln Gln Trp Ser Arg Asn Pro Leu Thr
1 5

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Gln Gln Trp Asn Ser Asn Pro Leu Thr
1 5

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Gln Gln Trp Thr Tyr Asn Pro Leu Thr
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Gly Phe Ser Leu Arg Thr Ser Gly Met Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Ser Thr Ser Gly Met Ser Val Ser
 1 5 10

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<400> 31

Gly Phe Ser Leu Thr Thr Ser Gly Met Ile Val Ser
 1 5 10

<210> 32
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<400> 32

His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Arg Asn
 1 5 10 15

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<400> 33

His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Arg Ser
 1 5 10 15

<210> 34
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His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Lys Ser
 1 5 10 15

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<210> 35
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<400> 35

His Ile Tyr Trp Asp Asp Asp Glu Arg Tyr Asn Pro Ser Leu Arg Asn
 1 5 10 15

<210> 36
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 <212> PRT
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<400> 36

Arg Ala Ile Thr Thr Val Ile Gly Gly Gly Thr Met Asp Tyr
 1 5 10

<210> 37
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 <213> Mus sp.

<400> 37

Arg Gly Ile Thr Thr Val Leu Gly Gly Gly Thr Met Asp Tyr
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<210> 38
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 <223> X is Ser, Thr, His, Tyr or Asn

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<223> X is Gly or Asp

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Xaa Xaa Gly Leu Asp Cys Asp Glu His Ser Xaa Glu Ser Arg Cys Cys
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Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
20 25 30

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Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Xaa Cys Glu
35 40 45

Xaa Xaa Phe Xaa Gln Lys Tyr Pro His Thr His Leu Val Xaa Gln Ala
50 55 60

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
65 70 75 80

Pro Ile Asn Met Leu Tyr Phe Asn Xaa Lys Xaa Gln Ile Ile Tyr Gly
85 90 95

Lys Ile Pro Xaa Met Val Val Asp Arg Cys Gly Cys Ser
100 105

<210> 40
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<212> PRT
<213> Homo sapiens

<400> 40

Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
1 5 10 15

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
20 25 30

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
35 40 45

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
50 55 60

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
65 70 75 80

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
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Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
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<220>

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<222> (15)..(15)

<223> X is Lys or Arg

<220>

<221> MISC_FEATURE

<222> (16)..(16)

<223> X is Ser, Thr, Asn or Gln

<400> 41

His Ile Tyr Trp Asp Asp Asp Xaa Arg Tyr Asn Pro Ser Leu Xaa Xaa
1 5 10 15

<210> 42

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<213> Mus sp.

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<223> X is Ala or Gly

<220>

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<222> (7)..(7)

<223> X is Ile, Leu or Val

<400> 42

Arg Xaa Ile Thr Thr Val Xaa Gly Gly Gly Thr Met Asp Tyr
1 5 10

<210> 43

<211> 25

<212> PRT

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<400> 43

Ala Asn Tyr Cys Ser Gly Glu Ser Glu Phe Val Phe Leu Gln Lys Tyr
1 5 10 15

Pro His Thr His Leu Val His Gln Ala
20 25

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<400> 44

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atgacctgca gtgccagctc aagtataagt tacatgcact ggtaccagca gaagccaggc 120

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acctcccca aaagatggat ttatgacaca tccaaactgg cttctggagt ccctgctcgc 180
 ttcagtggca gtgggtctgg gacctcttac tctctcacia tcagcagcat ggaggctgaa 240
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 accaagctgg agctgaaacg ggctgat 327

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 cagtcttcag gaaagggctt ggagtggctg gcacacattt attgggatga tgacaagcgc 180
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 ttcctcaaga tcaccagtgt gggcactgca gatactgcca catactactg tgctcgaaga 300
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Pro His Thr His Leu Val His Gln Ala
 20 25

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<400> 47

Gly Phe Ser Leu Arg Thr Ser Gly Ser Ser Val Ser
 1 5 10

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<400> 48

Gly Phe Ser Leu Arg Lys Ser Gly Met Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Arg Thr Val Gly Met Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Arg Thr Leu Gly Met Ser Val Ser
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Gly Phe Ser Leu Arg Thr Leu Gly Ser Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Arg Lys Val Gly Ser Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Arg Lys Leu Gly Ser Ser Val Ser
 1 5 10

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Gly Phe Ser Leu Arg Lys Ser Gly Ser Ser Val Ser
1 5 10

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Gln Gln Trp Xaa Xaa Asn Pro Leu Thr
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